

REMARKS

Objections to the Claims

The Examiner objected to Claims 3-5, 7, 9, and 19 because the Examiner concluded that those claims contain certain informalities. The Examiner identified alleged informalities in Claims 3, 5, 7, 9, and 19 and suggested amendments to those claims. The Applicant responds to each objection as follows.

Claims 3 and 4

The Examiner objected to Claim 3 as not having an output to the DFT because Claim 3 is a method claim. In response to the Examiner's objection the Applicant has amended Claim 3 so that the step of performing a forward DFT includes the phrase "to produce an output". Accordingly, as now presented, Claim 3 provides antecedent basis for the term "the output of the DFT" in the step of performing the periodogram. Written support for the amendment is found in Figure 2B and in the specification at page 14, lines 5-19. Therefore, no new matter is added. There being no separate basis for objection of Claim 4, it is believed that Claims 3 and 4 are now in proper form.

Claim 5

The Examiner suggested amending the phrase "one digital phase lock loop" to - - one of a plurality of digital phase lock loops - -. The Applicant believes that such an amendment would unduly limit the scope of Claim 5 to a method of suppressing narrowband interference in OFDM receivers where the receiver includes more than one digital phase lock loop for narrowband interference suppression. That may not always be the case. The Examiner has provided no reasons why Claim 5 should be so limited.

As explained in the response submitted on March 24, 2010, the narrowband interference detection system according to the present invention can cancel up to M narrowband interferers,

where M is the number of phase lock loops in the system. One phase lock loop is initialized **for each** estimated narrowband interferer. For example, if it is assumed that there will be two narrowband interferers present then two phase lock loops are initialised. If only one locks then it can be assumed that only one narrowband interferer is actually present. If both lock then it is assumed that two interferers are present. If three narrowband interferers are actually present then the phase lock loops will lock onto the strongest two narrowband interferers. Each phase lock loop locks onto a different interferer.

The Examiner's attention is directed to the Specification at page 16, lines 23-32, where it is clearly stated: "It should be noted that while only two digital phase lock loops are provided in the example shown in this Figure [2A] any number M [of] phase lock loops may be provided to suppress the M strongest interferers." Since M can be "any number", the written description clearly provides support for the number of phase lock loops to be as low as one. In contrast, there does not appear to be any written support for the amendment proposed by the Examiner that the claimed process requires a plurality of phase lock loops.

The Examiner is respectfully requested to reconsider the objection to Claim 5 in the light of the foregoing explanation.

Claim 7

The Examiner suggested amending the phrase "each phase lock loop" to - - each of the plurality of phase lock loops - -. The Applicant respectfully disagrees with this objection. The proposed amendment of Claim 7 would unduly limit the scope of the method to use with receivers having a plurality of phase lock loops for narrowband interference suppression. Applicant submits that this may not always be the case and requests reconsideration of the objection to Claim 7 for the same reasons presented above relative to Claim 5. Accordingly, the Examiner is respectfully requested to reconsider the objection of Claim 7.

Notwithstanding the foregoing remarks, the Applicant has amended Claim 7 to recite - - digital phase lock loop - - to be consistent with Claim 5 from which Claim 7 depends. Also the word "of" has been changed to - - for - - in line three of Claim 7 in order to provide better clarity of the claimed subject matter.

Claim 9

The Examiner suggested amending the phrase "with a" on line 2 to - - with - -. This change has been made.

The Examiner also suggested amending the phrase "from the phase lock loop" to - - from the plurality of digital phase lock loops - -. The Applicant has amended Claim 9 to recite - - each digital phase lock loop that has achieved lock - - to be consistent with Claim 5 from which Claim 9 depends and with the written description as set forth at page 15, line 26, to page 16, line 2. As now presented, Claim 9 allows for the case where only one phase lock loop achieves lock. That will occur when only one narrowband interferer is present. If the Examiner's suggested amendment is made, Claim 9 would exclude that situation from the scope of the claim. The Applicant believes that Claim 9 has written support in the specification and is clear without amendment for the same reasons discussed above relative to Claims 5 and 7. Accordingly, the Examiner is respectfully requested to reconsider the objection of Claim 9.

Claim 19

The Examiner suggested amending the phrase "from the phase lock loop" to - - from a plurality of phase lock loops - -. As it is currently presented Claim 19 allows for the case where only one phase lock loop achieves lock. That will occur when only one narrowband interferer is

present. If the Examiner's suggested amendment is made, Claim 19 would exclude that situation from the scope of the claim. The Applicant believes that Claim 19 is clear without amendment for the same reasons discussed above relative to Claims 5, 7, and 9. Accordingly, the Examiner is respectfully requested to reconsider the objection of Claim 19.

CONCLUSION

In view of the foregoing amendments and remarks, it is believed that all of the pending claims are in condition for allowance. The Applicant respectfully requests that the Examiner reconsider the objections to the claims in the light of the amendments and remarks presented above.

Respectfully submitted,

DANN, DORFMAN, HERRELL AND SKILLMAN
A Professional Corporation
Attorneys for Applicant

By Vincent T. Pace
Vincent T. Pace
PTO Registration No. 31,049

Tel.: 215-563-4100
Fax: 215-563-4044
e-mail: vp@ddhs.com